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(54) Title: THIOALKENEAMIDES AS TRANSKETOLASE INHIBITORS

$$\begin{array}{c|c}
R^1 & R^2 & O \\
 & & & & \\
R^4 & & & & \\
R^5 & & & \\
R^6 & & & & \\
R^5 & & & & \\
R^5 & & & & \\
\end{array} (I)$$

(57) Abstract: The present invention provides thioalkeneamides of formula (I) which are useful as transketolase inhibitors: wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^a$ - $R^d$ , n and ring A are as defined herein. The present invention also provides pharmaceutical compositions comprising the compounds of formula (I). The invention provides methods for inhibiting transketolase activity, reducing cellular ribose-5-phosphate levels, inhibiting nucleic acid synthesis, inhibiting cell proliferation and tumor cell growth in vitro and in vivo, stimulating apoptosis in tumor cells and treating cancer by administering a compound of formula (I) or a pharmaceutical composition thereof.

